RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/575,279
Source: IFW0
Date Processed by STIC: 11/26/07

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/575,279 CRF Edit Date: 6/26/07
Edited by:

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

___ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

_____

___ Moved responses to same line as heading/numeric identifier, specifically:

_____

✓ Other: deleted invalid Alpha Numeric heading for Prior Application Number.

Revised 09/09/2003

IFWO

RAW SEQUENCE LISTING DATE: 01/26/2007
PATENT APPLICATION: **US/10/575,279** TIME: 09:30:36

Input Set : **A:\pto.kd.txt**
Output Set: **N:\CRF4\01262007\J575279.raw**

```
      3 <110> APPLICANT: The UAB Research Foundation
      4       Oomens, Tom
      5       Megaw, Alexander
      6       Wertz, Gail
      8 <120> TITLE OF INVENTION: RECOMBINANT VIRUSES WITH HETEROLOGOUS ENVELOPE
PROTEINS
     10 <130> FILE REFERENCE: 057909-012001
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/575,279
C--> 12 <141> CURRENT FILING DATE: 2006-04-11
     12 <150> PRIOR APPLICATION NUMBER: 60/588,379
     13 <151> PRIOR FILING DATE: 2004-07-16
     15 <150> PRIOR APPLICATION NUMBER: 60/528,214
     16 <151> PRIOR FILING DATE: 2003-12-10
     18 <150> PRIOR APPLICATION NUMBER: 10/262,238
     19 <151> PRIOR FILING DATE: 2002-10-01
     21 <150> PRIOR APPLICATION NUMBER: 60/397,289
     22 <151> PRIOR FILING DATE: 2002-07-19
     24 <150> PRIOR APPLICATION NUMBER: 60/326,259
     25 <151> PRIOR FILING DATE: 2001-10-01
     27 <160> NUMBER OF SEQ ID NOS: 4
     29 <170> SOFTWARE: PatentIn version 3.2
     31 <210> SEQ ID NO: 1
     32 <211> LENGTH: 7
     33 <212> TYPE: PRT
     34 <213> ORGANISM: Autographa californica nucleopolyhedrovirus
     36 <400> SEQUENCE: 1
     38 Arg Asn Arg Asn Arg Gln Tyr
     39 1               5
     42 <210> SEQ ID NO: 2
     43 <211> LENGTH: 15
     44 <212> TYPE: PRT
     45 <213> ORGANISM: Human respiratory syncytial virus
     47 <400> SEQUENCE: 2
     49 Ser Arg Arg Gln Leu Ser Gly Ile Asn Asn Ile Ala Phe Ser Asn
     50 1               5                   10                  15
     53 <210> SEQ ID NO: 3
     54 <211> LENGTH: 574
     55 <212> TYPE: PRT
     56 <213> ORGANISM: Human respiratory syncytial virus
     58 <400> SEQUENCE: 3
     60 Met Glu Leu Leu Ile Leu Lys Ala Asn Ala Ile Thr Thr Ile Leu Thr
     61 1               5                   10                  15
     64 Ala Val Thr Phe Cys Phe Ala Ser Gly Gln Asn Ile Thr Glu Glu Phe
     65            20                  25                  30
```

RAW SEQUENCE LISTING DATE: 01/26/2007
PATENT APPLICATION: US/10/575,279 TIME: 09:30:36

Input Set : A:\pto.kd.txt
Output Set: N:\CRF4\01262007\J575279.raw

```
68 Tyr Gln Ser Thr Cys Ser Ala Val Ser Lys Gly Tyr Leu Ser Ala Leu
69          35                  40                  45
72 Arg Thr Gly Trp Tyr Thr Ser Val Ile Thr Ile Glu Leu Ser Asn Ile
73      50                  55                  60
76 Lys Glu Asn Lys Cys Asn Gly Thr Asp Ala Lys Val Lys Leu Ile Lys
77 65                  70                  75                  80
80 Gln Glu Leu Asp Lys Tyr Lys Asn Ala Val Thr Glu Leu Gln Leu Leu
81                  85                  90                  95
84 Met Gln Ser Thr Pro Pro Thr Asn Asn Arg Ala Arg Arg Glu Leu Pro
85              100                 105                 110
88 Arg Phe Met Asn Tyr Thr Leu Asn Asn Ala Lys Lys Thr Asn Val Thr
89          115                 120                 125
92 Leu Ser Lys Lys Arg Lys Arg Arg Phe Leu Gly Phe Leu Leu Gly Val
93      130                 135                 140
96 Gly Ser Ala Ile Ala Ser Gly Val Ala Val Ser Lys Val Leu His Leu
97 145                 150                 155                 160
100 Glu Gly Glu Val Asn Lys Ile Lys Ser Ala Leu Leu Ser Thr Asn Lys
101                 165                 170                 175
104 Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val
105             180                 185                 190
108 Leu Asp Leu Lys Asn Tyr Ile Asp Lys Gln Leu Leu Pro Ile Val Asn
109         195                 200                 205
112 Lys Gln Ser Cys Ser Ile Ser Asn Ile Glu Thr Val Ile Glu Phe Gln
113     210                 215                 220
116 Gln Lys Asn Asn Arg Leu Leu Glu Ile Thr Arg Glu Phe Ser Val Asn
117 225                 230                 235                 240
120 Ala Gly Val Thr Thr Pro Val Ser Thr Tyr Met Leu Thr Asn Ser Glu
121                 245                 250                 255
124 Leu Leu Ser Leu Ile Asn Asp Met Pro Ile Thr Asn Asp Gln Lys Lys
125             260                 265                 270
128 Leu Met Ser Asn Asn Val Gln Ile Val Arg Gln Gln Ser Tyr Ser Ile
129         275                 280                 285
132 Met Ser Ile Ile Lys Glu Glu Val Leu Ala Tyr Val Val Gln Leu Pro
133     290                 295                 300
136 Leu Tyr Gly Val Ile Asp Thr Pro Cys Trp Lys Leu His Thr Ser Pro
137 305                 310                 315                 320
140 Leu Cys Thr Thr Asn Thr Lys Glu Gly Ser Asn Ile Cys Leu Thr Arg
141                 325                 330                 335
144 Thr Asp Arg Gly Trp Tyr Cys Asp Asn Ala Gly Ser Val Ser Phe Phe
145             340                 345                 350
148 Pro Gln Ala Glu Thr Cys Lys Val Gln Ser Asn Arg Val Phe Cys Asp
149         355                 360                 365
152 Thr Met Asn Ser Leu Thr Leu Pro Ser Glu Ile Asn Leu Cys Asn Val
153     370                 375                 380
156 Asp Ile Phe Asn Pro Lys Tyr Asp Cys Lys Ile Met Thr Ser Lys Thr
157 385                 390                 395                 400
160 Asp Val Ser Ser Ser Val Ile Thr Ser Leu Gly Ala Ile Val Ser Cys
161                 405                 410                 415
164 Tyr Gly Lys Thr Lys Cys Thr Ala Ser Asn Lys Asn Arg Gly Ile Ile
```

RAW SEQUENCE LISTING DATE: 01/26/2007
PATENT APPLICATION: US/10/575,279 TIME: 09:30:36

Input Set : A:\pto.kd.txt
Output Set: N:\CRF4\01262007\J575279.raw

```
165                 420                 425                 430
168 Lys Thr Phe Ser Asn Gly Cys Asp Tyr Val Ser Asn Lys Gly Met Asp
169         435                 440                 445
172 Thr Val Ser Val Gly Asn Thr Leu Tyr Tyr Val Asn Lys Gln Glu Gly
173     450                 455                 460
176 Lys Ser Leu Tyr Val Lys Gly Glu Pro Ile Ile Asn Phe Tyr Asp Pro
177 465                 470                 475                 480
180 Leu Val Phe Pro Ser Asp Glu Phe Asp Ala Ser Ile Ser Gln Val Asn
181                 485                 490                 495
184 Glu Lys Ile Asn Gln Ser Leu Ala Phe Ile Arg Lys Ser Asp Glu Leu
185                 500                 505                 510
188 Leu His Asn Val Asn Ala Gly Lys Ser Thr Thr Asn Ile Met Ile Thr
189         515                 520                 525
192 Thr Ile Ile Ile Val Ile Ile Val Ile Leu Leu Ser Leu Ile Ala Val
193     530                 535                 540
196 Gly Leu Leu Leu Tyr Cys Lys Ala Arg Ser Thr Pro Val Thr Leu Ser
197 545                 550                 555                 560
200 Lys Asp Gln Leu Ser Gly Ile Asn Asn Ile Ala Phe Ser Asn
201                 565                 570
204 <210> SEQ ID NO: 4
205 <211> LENGTH: 511
206 <212> TYPE: PRT
207 <213> ORGANISM: Vesicular stomatitis virus
209 <400> SEQUENCE: 4
211 Met Lys Cys Leu Leu Tyr Leu Ala Phe Leu Phe Ile Gly Val Asn Cys
212 1               5                   10                  15
215 Lys Phe Thr Ile Val Phe Pro His Asn Gln Lys Gly Asn Trp Lys Asn
216             20                  25                  30
219 Val Pro Ser Asn Tyr His Tyr Cys Pro Ser Ser Ser Asp Leu Asn Trp
220         35                  40                  45
223 His Asn Asp Leu Ile Gly Thr Ala Ile Gln Val Lys Met Pro Lys Ser
224     50                  55                  60
227 His Lys Ala Ile Gln Ala Asp Gly Trp Met Cys His Ala Ser Lys Trp
228 65                  70                  75                  80
231 Val Thr Thr Cys Asp Phe Arg Trp Tyr Gly Pro Lys Tyr Ile Thr Gln
232                 85                  90                  95
235 Ser Ile Arg Ser Phe Thr Pro Ser Val Glu Gln Cys Lys Glu Ser Ile
236             100                 105                 110
239 Glu Gln Thr Lys Gln Gly Thr Trp Leu Asn Pro Gly Phe Pro Pro Gln
240         115                 120                 125
243 Ser Cys Gly Tyr Ala Thr Val Thr Asp Ala Glu Ala Val Ile Val Gln
244     130                 135                 140
247 Val Thr Pro His His Val Leu Val Asp Glu Tyr Thr Gly Glu Trp Val
248 145                 150                 155                 160
251 Asp Ser Gln Phe Ile Asn Gly Lys Cys Ser Asn Tyr Ile Cys Pro Thr
252                 165                 170                 175
255 Val His Asn Ser Thr Thr Trp His Ser Asp Tyr Lys Val Lys Gly Leu
256             180                 185                 190
259 Cys Asp Ser Asn Leu Ile Ser Met Asp Ile Thr Phe Phe Ser Glu Asp
```

RAW SEQUENCE LISTING DATE: 01/26/2007
PATENT APPLICATION: US/10/575,279 TIME: 09:30:36

Input Set : A:\pto.kd.txt
Output Set: N:\CRF4\01262007\J575279.raw

```
260         195                 200                 205
263 Gly Glu Leu Ser Ser Leu Gly Lys Glu Gly Thr Gly Phe Arg Ser Asn
264     210                 215                 220
267 Tyr Phe Ala Tyr Glu Thr Gly Gly Lys Ala Cys Lys Met Gln Tyr Cys
268 225                 230                 235                 240
271 Lys His Trp Gly Val Arg Leu Pro Ser Gly Val Trp Phe Glu Met Ala
272                 245                 250                 255
275 Asp Lys Asp Leu Phe Ala Ala Ala Arg Phe Pro Glu Cys Pro Glu Gly
276             260                 265                 270
279 Ser Ser Ile Ser Ala Pro Ser Gln Thr Ser Val Asp Val Ser Leu Ile
280         275                 280                 285
283 Gln Asp Val Glu Arg Ile Leu Asp Tyr Ser Leu Cys Gln Glu Thr Trp
284     290                 295                 300
287 Ser Lys Ile Arg Ala Gly Leu Pro Ile Ser Pro Val Asp Leu Ser Tyr
288 305                 310                 315                 320
291 Leu Ala Pro Lys Asn Pro Gly Thr Gly Pro Ala Phe Thr Ile Ile Asn
292                 325                 330                 335
295 Gly Thr Leu Lys Tyr Phe Glu Thr Arg Tyr Ile Arg Val Asp Ile Ala
296             340                 345                 350
299 Ala Pro Ile Leu Ser Arg Met Val Gly Met Ile Ser Gly Thr Thr Thr
300         355                 360                 365
303 Glu Arg Glu Leu Trp Asp Asp Trp Ala Pro Tyr Glu Asp Val Glu Ile
304     370                 375                 380
307 Gly Pro Asn Gly Val Leu Arg Thr Ser Ser Gly Tyr Lys Phe Pro Leu
308 385                 390                 395                 400
311 Tyr Met Ile Gly His Gly Met Leu Asp Ser Asp Leu His Leu Ser Ser
312                 405                 410                 415
315 Lys Ala Gln Val Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln
316             420                 425                 430
319 Leu Pro Asp Asp Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys
320         435                 440                 445
323 Asn Pro Ile Glu Leu Val Glu Gly Trp Phe Ser Ser Trp Lys Ser Ser
324     450                 455                 460
327 Ile Ala Ser Phe Phe Phe Ile Ile Gly Leu Ile Ile Gly Leu Phe Leu
328 465                 470                 475                 480
331 Val Leu Arg Val Gly Ile His Leu Cys Ile Lys Leu Lys His Thr Lys
332                 485                 490                 495
335 Lys Arg Gln Ile Tyr Thr Asp Ile Glu Met Asn Arg Leu Gly Lys
336             500                 505                 510
```

VERIFICATION SUMMARY DATE: 01/26/2007
PATENT APPLICATION: **US/10/575,279** TIME: 09:30:37

Input Set : **A:\pto.kd.txt**
Output Set: **N:\CRF4\01262007\J575279.raw**

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

Raw Sequence Listing before editing (for reference only)

IFWO

```
                    RAW SEQUENCE LISTING                        DATE: 01/19/2007
                    PATENT APPLICATION:  US/10/575,279          TIME: 16:41:43

                    Input Set : A:\Sequence Listing.ST25.txt
                    Output Set: N:\CRF4\01192007\J575279.raw

      3 <110> APPLICANT: The UAB Research Foundation
      4       Oomens, Tom
      5       Megaw, Alexander
      6       Wertz, Gail
      8 <120> TITLE OF INVENTION: RECOMBINANT VIRUSES WITH HETEROLOGOUS ENVELOPE PROTEINS
     10 <130> FILE REFERENCE: 057909-012001
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/575,279                  deleted
C--> 12 <141> CURRENT FILING DATE: 2006-04-11
     12 <150> PRIOR APPLICATION NUMBER: U.S. Provisional Patent Application Serial No.
60/588,379
     13 <151> PRIOR FILING DATE: 2004-07-16                              deleted
     15 <150> PRIOR APPLICATION NUMBER: U.S. Provisional Patent Application Serial No.
60/528,214
     16 <151> PRIOR FILING DATE: 2003-12-10                              deleted
     18 <150> PRIOR APPLICATION NUMBER: U.S. Patent Application Serial No. 10/262.238
     19 <151> PRIOR FILING DATE: 2002-10-01                              deleted
     21 <150> PRIOR APPLICATION NUMBER: U.S. Provisional Patent Application Serial No.
60/397,289
     22 <151> PRIOR FILING DATE: 2002-07-19                              deleted
     24 <150> PRIOR APPLICATION NUMBER: U.S. Provisional Patent Application Serial No.
60/326,259
     25 <151> PRIOR FILING DATE: 2001-10-01
     27 <160> NUMBER OF SEQ ID NOS: 4
     29 <170> SOFTWARE: PatentIn version 3.2
     31 <210> SEQ ID NO: 1
     32 <211> LENGTH: 7                                                  (pg.1)
     33 <212> TYPE: PRT
     34 <213> ORGANISM: Autographa californica nucleopolyhedrovirus
     36 <400> SEQUENCE: 1
     38 Arg Asn Arg Asn Arg Gln Tyr
     39 1               5
     42 <210> SEQ ID NO: 2
     43 <211> LENGTH: 15
     44 <212> TYPE: PRT
     45 <213> ORGANISM: Human respiratory syncytial virus
     47 <400> SEQUENCE: 2
     49 Ser Arg Arg Gln Leu Ser Gly Ile Asn Asn Ile Ala Phe Ser Asn
     50 1               5                   10                  15
     53 <210> SEQ ID NO: 3
     54 <211> LENGTH: 574
     55 <212> TYPE: PRT
     56 <213> ORGANISM: Human respiratory syncytial virus
     58 <400> SEQUENCE: 3
     60 Met Glu Leu Leu Ile Leu Lys Ala Asn Ala Ile Thr Thr Ile Leu Thr
```

```
61 1               5                   10                  15
64 Ala Val Thr Phe Cys Phe Ala Ser Gly Gln Asn Ile Thr Glu Glu Phe
65             20                  25                  30
```

RAW SEQUENCE LISTING DATE: 01/19/2007
PATENT APPLICATION: US/10/575,279 TIME: 16:41:43

Input Set : A:\Sequence Listing.ST25.txt
Output Set: N:\CRF4\01192007\J575279.raw

```
68 Tyr Gln Ser Thr Cys Ser Ala Val Ser Lys Gly Tyr Leu Ser Ala Leu
69         35                  40                  45
72 Arg Thr Gly Trp Tyr Thr Ser Val Ile Thr Ile Glu Leu Ser Asn Ile
73     50                  55                  60
76 Lys Glu Asn Lys Cys Asn Gly Thr Asp Ala Lys Val Lys Leu Ile Lys
77 65                  70                  75                  80
80 Gln Glu Leu Asp Lys Tyr Lys Asn Ala Val Thr Glu Leu Gln Leu Leu
81                 85                  90                  95
84 Met Gln Ser Thr Pro Pro Thr Asn Asn Arg Ala Arg Arg Glu Leu Pro
85             100                 105                 110
88 Arg Phe Met Asn Tyr Thr Leu Asn Asn Ala Lys Lys Thr Asn Val Thr
89         115                 120                 125
92 Leu Ser Lys Lys Arg Lys Arg Arg Phe Leu Gly Phe Leu Leu Gly Val
93     130                 135                 140
96 Gly Ser Ala Ile Ala Ser Gly Val Ala Val Ser Lys Val Leu His Leu
97 145                 150                 155                 160
100 Glu Gly Glu Val Asn Lys Ile Lys Ser Ala Leu Leu Ser Thr Asn Lys
101                165                 170                 175
104 Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val
105            180                 185                 190
108 Leu Asp Leu Lys Asn Tyr Ile Asp Lys Gln Leu Leu Pro Ile Val Asn
109        195                 200                 205
112 Lys Gln Ser Cys Ser Ile Ser Asn Ile Glu Thr Val Ile Glu Phe Gln
113    210                 215                 220
116 Gln Lys Asn Asn Arg Leu Leu Glu Ile Thr Arg Glu Phe Ser Val Asn
117 225                 230                 235                 240
120 Ala Gly Val Thr Thr Pro Val Ser Thr Tyr Met Leu Thr Asn Ser Glu
121                245                 250                 255
124 Leu Leu Ser Leu Ile Asn Asp Met Pro Ile Thr Asn Asp Gln Lys Lys
125            260                 265                 270
128 Leu Met Ser Asn Asn Val Gln Ile Val Arg Gln Gln Ser Tyr Ser Ile
129        275                 280                 285
132 Met Ser Ile Ile Lys Glu Glu Val Leu Ala Tyr Val Val Gln Leu Pro
133    290                 295                 300
136 Leu Tyr Gly Val Ile Asp Thr Pro Cys Trp Lys Leu His Thr Ser Pro
137 305                 310                 315                 320
140 Leu Cys Thr Thr Asn Thr Lys Glu Gly Ser Asn Ile Cys Leu Thr Arg
141                325                 330                 335
144 Thr Asp Arg Gly Trp Tyr Cys Asp Asn Ala Gly Ser Val Ser Phe Phe
145            340                 345                 350
148 Pro Gln Ala Glu Thr Cys Lys Val Gln Ser Asn Arg Val Phe Cys Asp
149        355                 360                 365
152 Thr Met Asn Ser Leu Thr Leu Pro Ser Glu Ile Asn Leu Cys Asn Val
153    370                 375                 380
156 Asp Ile Phe Asn Pro Lys Tyr Asp Cys Lys Ile Met Thr Ser Lys Thr
157 385                 390                 395                 400
160 Asp Val Ser Ser Ser Val Ile Thr Ser Leu Gly Ala Ile Val Ser Cys
161                405                 410                 415
164 Tyr Gly Lys Thr Lys Cys Thr Ala Ser Asn Lys Asn Arg Gly Ile Ile
```

RAW SEQUENCE LISTING DATE: 01/19/2007
PATENT APPLICATION: US/10/575,279 TIME: 16:41:43

Input Set : A:\Sequence Listing.ST25.txt
Output Set: N:\CRF4\01192007\J575279.raw

```
165                 420                 425                 430
168 Lys Thr Phe Ser Asn Gly Cys Asp Tyr Val Ser Asn Lys Gly Met Asp
169         435                 440                 445
172 Thr Val Ser Val Gly Asn Thr Leu Tyr Tyr Val Asn Lys Gln Glu Gly
173     450                 455                 460
176 Lys Ser Leu Tyr Val Lys Gly Glu Pro Ile Ile Asn Phe Tyr Asp Pro
177 465                 470                 475                 480
180 Leu Val Phe Pro Ser Asp Glu Phe Asp Ala Ser Ile Ser Gln Val Asn
181                 485                 490                 495
184 Glu Lys Ile Asn Gln Ser Leu Ala Phe Ile Arg Lys Ser Asp Glu Leu
185                 500                 505                 510
188 Leu His Asn Val Asn Ala Gly Lys Ser Thr Thr Asn Ile Met Ile Thr
189         515                 520                 525
192 Thr Ile Ile Ile Val Ile Ile Val Ile Leu Leu Ser Leu Ile Ala Val
193     530                 535                 540
196 Gly Leu Leu Leu Tyr Cys Lys Ala Arg Ser Thr Pro Val Thr Leu Ser
197 545                 550                 555                 560
200 Lys Asp Gln Leu Ser Gly Ile Asn Asn Ile Ala Phe Ser Asn
201                 565                 570
204 <210> SEQ ID NO: 4
205 <211> LENGTH: 511
206 <212> TYPE: PRT
207 <213> ORGANISM: Vesicular stomatitis virus
209 <400> SEQUENCE: 4
211 Met Lys Cys Leu Leu Tyr Leu Ala Phe Leu Phe Ile Gly Val Asn Cys
212 1               5                   10                  15
215 Lys Phe Thr Ile Val Phe Pro His Asn Gln Lys Gly Asn Trp Lys Asn
216             20                  25                  30
219 Val Pro Ser Asn Tyr His Tyr Cys Pro Ser Ser Ser Asp Leu Asn Trp
220         35                  40                  45
223 His Asn Asp Leu Ile Gly Thr Ala Ile Gln Val Lys Met Pro Lys Ser
224     50                  55                  60
227 His Lys Ala Ile Gln Ala Asp Gly Trp Met Cys His Ala Ser Lys Trp
228 65                  70                  75                  80
231 Val Thr Thr Cys Asp Phe Arg Trp Tyr Gly Pro Lys Tyr Ile Thr Gln
232                 85                  90                  95
235 Ser Ile Arg Ser Phe Thr Pro Ser Val Glu Gln Cys Lys Glu Ser Ile
236             100                 105                 110
239 Glu Gln Thr Lys Gln Gly Thr Trp Leu Asn Pro Gly Phe Pro Pro Gln
240         115                 120                 125
243 Ser Cys Gly Tyr Ala Thr Val Thr Asp Ala Glu Ala Val Ile Val Gln
244     130                 135                 140
247 Val Thr Pro His His Val Leu Val Asp Glu Tyr Thr Gly Glu Trp Val
248 145                 150                 155                 160
251 Asp Ser Gln Phe Ile Asn Gly Lys Cys Ser Asn Tyr Ile Cys Pro Thr
252                 165                 170                 175
255 Val His Asn Ser Thr Thr Trp His Ser Asp Tyr Lys Val Lys Gly Leu
256             180                 185                 190
259 Cys Asp Ser Asn Leu Ile Ser Met Asp Ile Thr Phe Phe Ser Glu Asp
```

RAW SEQUENCE LISTING DATE: 01/19/2007
PATENT APPLICATION: US/10/575,279 TIME: 16:41:43

Input Set : A:\Sequence Listing.ST25.txt
Output Set: N:\CRF4\01192007\J575279.raw

```
260         195                 200                 205
263 Gly Glu Leu Ser Ser Leu Gly Lys Glu Gly Thr Gly Phe Arg Ser Asn
264     210                 215                 220
267 Tyr Phe Ala Tyr Glu Thr Gly Gly Lys Ala Cys Lys Met Gln Tyr Cys
268 225                 230                 235                 240
271 Lys His Trp Gly Val Arg Leu Pro Ser Gly Val Trp Phe Glu Met Ala
272                 245                 250                 255
275 Asp Lys Asp Leu Phe Ala Ala Ala Arg Phe Pro Glu Cys Pro Glu Gly
276             260                 265                 270
279 Ser Ser Ile Ser Ala Pro Ser Gln Thr Ser Val Asp Val Ser Leu Ile
280         275                 280                 285
283 Gln Asp Val Glu Arg Ile Leu Asp Tyr Ser Leu Cys Gln Glu Thr Trp
284     290                 295                 300
287 Ser Lys Ile Arg Ala Gly Leu Pro Ile Ser Pro Val Asp Leu Ser Tyr
288 305                 310                 315                 320
291 Leu Ala Pro Lys Asn Pro Gly Thr Gly Pro Ala Phe Thr Ile Ile Asn
292                 325                 330                 335
295 Gly Thr Leu Lys Tyr Phe Glu Thr Arg Tyr Ile Arg Val Asp Ile Ala
296             340                 345                 350
299 Ala Pro Ile Leu Ser Arg Met Val Gly Met Ile Ser Gly Thr Thr Thr
300         355                 360                 365
303 Glu Arg Glu Leu Trp Asp Asp Trp Ala Pro Tyr Glu Asp Val Glu Ile
304     370                 375                 380
307 Gly Pro Asn Gly Val Leu Arg Thr Ser Ser Gly Tyr Lys Phe Pro Leu
308 385                 390                 395                 400
311 Tyr Met Ile Gly His Gly Met Leu Asp Ser Asp Leu His Leu Ser Ser
312                 405                 410                 415
315 Lys Ala Gln Val Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln
316             420                 425                 430
319 Leu Pro Asp Asp Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys
320         435                 440                 445
323 Asn Pro Ile Glu Leu Val Glu Gly Trp Phe Ser Ser Trp Lys Ser Ser
324     450                 455                 460
327 Ile Ala Ser Phe Phe Phe Ile Ile Gly Leu Ile Ile Gly Leu Phe Leu
328 465                 470                 475                 480
331 Val Leu Arg Val Gly Ile His Leu Cys Ile Lys Leu Lys His Thr Lys
332                 485                 490                 495
335 Lys Arg Gln Ile Tyr Thr Asp Ile Glu Met Asn Arg Leu Gly Lys
336             500                 505                 510
```

VERIFICATION SUMMARY DATE: 01/19/2007
PATENT APPLICATION: US/10/575,279 TIME: 16:41:44

Input Set : A:\Sequence Listing.ST25.txt
Output Set: N:\CRF4\01192007\J575279.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date